

WHAT IS CLAIMED IS:

1. A respiratory mask assembly for delivering breathable gas to a patient, comprising:

a frame having a main body and a side frame member provided on each lateral side of the main body, at least one of the side frame members including an integrally formed locking clip receiver assembly; and

at least one locking clip having a main body providing a front portion and a rear portion, the front portion adapted to be removably coupled with the at least one locking clip receiver assembly and the rear portion adapted to be removably coupled to a headgear assembly,

wherein the rear portion of the locking clip includes a cross bar that forms an opening through which a strap of the headgear assembly can pass and be removably coupled with the cross bar, and the front portion of the locking clip includes at least one resiliently flexible spring arm that is flexible within the plane of the main body.

2. A respiratory mask assembly according to claim 1, wherein the locking clip receiver assembly includes a slot and the spring arm includes a locking tab at a free end thereof, the locking tab configured to be inserted into the slot and interlocked with the locking flange provided within the slot to removably couple the locking clip to the locking clip receiver assembly.

3. A respiratory mask assembly according to claim 1, wherein the locking clip receiver assembly includes a slot and the locking clip includes a central support tab that is inserted into the slot when the locking clip and locking clip receiver assembly are removably coupled so as to prevent relative movement between the locking clip and the locking clip receiver assembly.

4. A respiratory mask assembly according to claim 3, wherein the locking clip includes a pair of spring arms, the central support tab being positioned between the pair of spring arms and having a length that is greater than a length of each of the spring arms.

5. A respiratory mask assembly according to claim 4, wherein the slot includes a locking portion and a central portion, the at least one spring arm being insertable into the

locking portion of the slot and the central support tab being insertable into the central portion of the slot.

6. A respiratory mask assembly according to claim 5, wherein the locking portion of the slot has a height approximately equal to a height of a front portion of the at least one spring arm, and the central portion of the slot has a height approximately equal to a height of the central support tab.

7. A respiratory mask assembly according to claim 6, wherein the height of the locking portion is less than the height of the central portion to prevent the central support tab from being inserted into the locking portion of the slot.

8. A respiratory mask assembly according to claim 4, wherein the slot includes a protrusion and the central support tab includes a groove, the protrusion being inserted into the groove when the locking clip and locking clip receiver assembly are removably coupled to one another.

9. A respiratory mask assembly according to claim 8, wherein the protrusion extends outwardly away from the slot.

10. A respiratory mask assembly according to claim 8, wherein the groove has a length that is at least half a length of the central support tab.

11. A respiratory mask assembly according to claim 8, wherein a force applied to one of the pair of spring arms is not transferred to the other of the pair of spring arms due to the engagement between the groove of the central support tab and the protrusion of the slot.

12. A respiratory mask assembly according to any one of claims 1-11, wherein the locking clip is configured to allow the patient to grasp the same between the thumb and forefinger of the patient.

13. A respiratory mask assembly according to any one of claims 1-12, wherein both side frame members include a locking clip receiver assembly, and the mask assembly

includes a pair of locking clips adapted to be removably coupled with a respective one of the locking clip receiver assemblies.

14. A respiratory mask assembly according to any one of claims 1-13, wherein the mask assembly is a nasal mask.

15. A locking clip for removably coupling a frame and a headgear assembly of a respiratory mask assembly for delivering breathable gas to a patient, the locking clip comprising:

a main body providing a front portion and a rear portion, the front portion adapted to be removably coupled with the frame and the rear portion adapted to be removably coupled to the headgear assembly,

wherein the rear portion includes a cross bar that forms an opening through which a strap of the headgear assembly can pass and be removably coupled with the cross bar, and the front portion includes at least one resiliently flexible spring arm that is flexible within the plane of the main body.

16. The locking clip according to claim 15, wherein the spring arm includes a locking tab at a free end thereof, the locking tab configured to be inserted into a slot of the frame and interlocked with a locking flange provided within the slot to removably couple the locking clip to the frame.

17. The locking clip according to claim 15, wherein the locking clip includes a central support tab that is inserted into a slot of the frame when the locking clip and frame are removably coupled so as to prevent relative movement between the locking clip and the frame.

18. The locking clip according to claim 17, wherein the locking clip includes a pair of spring arms, the central support tab being positioned between the pair of spring arms and having a length that is greater than a length of each of the spring arms.

19. The locking clip according to any one of claims 17-18, wherein the central support tab includes a groove that receives a protrusion provided in the slot when the locking clip and frame are removably coupled to one another.

20. The locking clip according to claim 19, wherein the groove has a length that is at least half a length of the central support tab.

21. The locking clip according to any one of claims 19-20, wherein a force applied to one of the pair of spring arms is not transferred to the other of the pair of spring arms due to the engagement between the groove of the central support tab and the protrusion of the slot.

22. The locking clip according to any one of claims 17-21, wherein the central support tab has a height that is greater than a height of a front portion of the at least one spring arm.

23. The locking clip according to any one of claims 15-22, wherein the locking clip is configured to allow the patient to grasp the same between the thumb and forefinger of the patient.

24. A respiratory mask assembly for delivering breathable gas to a patient, comprising:

a frame having a main body and a side frame member provided on each lateral side of the main body, at least one of the side frame members including an integrally formed locking clip receiver assembly; and

at least one locking clip having a main body providing a front portion and a rear portion, the front portion adapted to be removably coupled with the at least one locking clip receiver assembly and the rear portion adapted to be removably coupled to a headgear assembly,

wherein the front portion and rear portion of the at least one locking clip are disposed at an angle with respect to one another.

25. A respiratory mask assembly according to claim 24, wherein the front portion is generally aligned with the at least one locking clip receiver assembly when the front portion is removably coupled with the at least one locking clip receiver assembly and the rear

portion is angled with respect to the front portion such that the rear portion extends towards the patient's face when the mask assembly is secured to the patient's face.

26. A respiratory mask assembly according to claim 24, wherein the rear portion of the locking clip includes a cross bar that forms an opening through which a strap of the headgear assembly can pass and be removably coupled with the cross bar, and the front portion of the locking clip includes at least one resiliently flexible spring arm that is flexible within the plane of the main body.

27. A respiratory mask assembly for delivering breathable gas to a patient, comprising:

a frame having a main body and a side frame member provided on each lateral side of the main body,

the main body providing an orifice therethrough for the introduction of breathable gas into a nasal breathing cavity and a collar that substantially surrounds the orifice,

at least one of the side frame members including an integrally formed locking clip receiver assembly,

wherein the frame is formed by molding such that mold components of a mold can be withdrawn along a single plane to separate the mold from the collar and the locking clip receiver assembly.

28. A respiratory mask assembly according to claim 27, further comprising an elbow assembly coupled to the collar.

29. A respiratory mask assembly according to any one of claims 27-28, further comprising at least one locking clip having a main body providing a front portion and a rear portion, the front portion adapted to be removably coupled with the at least one locking clip receiver assembly and the rear portion adapted to be removably coupled to a headgear assembly.

30. A respiratory mask assembly according to claim 29, wherein the rear portion of the locking clip includes a cross bar that forms an opening through which a strap of the headgear assembly can pass and be removably coupled with the cross bar, and the front portion

of the locking clip includes at least one resiliently flexible spring arm that is flexible within the plane of the main body.

31. A method for molding a frame for a respiratory mask assembly, the method comprising:

molding a frame in a mold to include a main body and a side frame member provided on each lateral side of the main body, the main body defining an orifice therethrough and a collar that substantially surrounds the orifice;

forming at least one locking clip receiver assembly on at least one of the side frame members; and

withdrawing opposed mold components of the mold along a single plane to separate the mold from the collar and the locking clip receiver assembly.